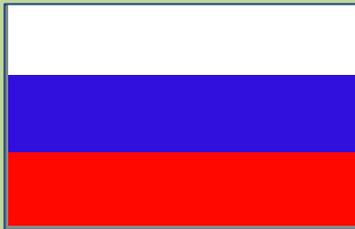


Japan–Russia Energy and Environment Dialogue in Niigata

On the development of the new Energy Strategy of Russia (ESR-2035)



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The energy strategy of Russia



Russia's energy strategy is the main document containing the system of science-based claims about the priorities of long-term energy policy and the mechanisms for its implementation

Tools and mechanisms for implementation:

State the impact on the energy market

Pricing policy

Tax and customs policy

Improvement of legislation and regulatory framework

**Energy Strategy of Russia for the period up to 2030
(approved by the Government of the Russian Federation in November 2009)**

Stages of implementation of the State Energy Policy of Russia



1992

The concept of the energy policy of Russia under new economic conditions

1995

**Main directions of the Energy Policy
of the Russian Federation for the
period till 2010**

**Energy Strategy of Russia
(Main provisions)**

2000

**Main provisions of the Energy Strategy of Russia
for the period till 2020**

2003

Energy Strategy of Russia for the period till 2020

The correction of the Energy Strategy of Russia

The Energy Strategy should be updated at least once in five years. In this regard, the government of the Russian Federation made a decision on the correction of the Energy strategy of Russia for the period up to 2030, with its prolongation until 2035.

Additional reasons for the need to adjust your Strategy:

- the prolonged stagnation of the world economy;
- the minimum increase of the energy demand both in Russia and in the world markets;
- numerous geopolitical, social, and natural disasters - 2010s;

The optimistic scenario of ESR-2030 turned out to be unrealistic.

Key challenges

Internal

Slow post-crisis development of the economy and the increasing dependency of the budget on fuel and energy complex;

The increase of energy prices for end consumers;

The need for rapid technological modernization for improvement of the energy sector efficiency.

External

The stagnation or low growth of demand for Russian energy resources;

The transition from resource globalization to regional energy self-sufficiency;

Increased competition, including through the use of alternative and unconventional energy resources;

External economic and technological sanctions.

The roadmap project of ESR-2035

The draft revised Energy Strategy was developed by the Institute of Energy Strategy, together with the Energy Research Institute of the Russian Academy of Sciences and Analytical Center under the Government of the Russian Federation and submitted to the Ministry of Energy of Russia.

The approval by the Government of the Russian Federation of the outcome document (November/December 2014)

October
2014

The submission to the Government of the Russian Federation

August-October
2014

Completion of the project on the basis of the comments received. Training scenarios for sectoral master plans

January-July 2014

Extensive public comment and interagency coordination

January 2014

Basic (coordinated within the Ministry of energy) project ESR-2035

Currently the project reconciliation procedure is in the process with ministries, agencies and state-owned energy companies

Draft of Energy Strategy of Russia for the period up to 2035

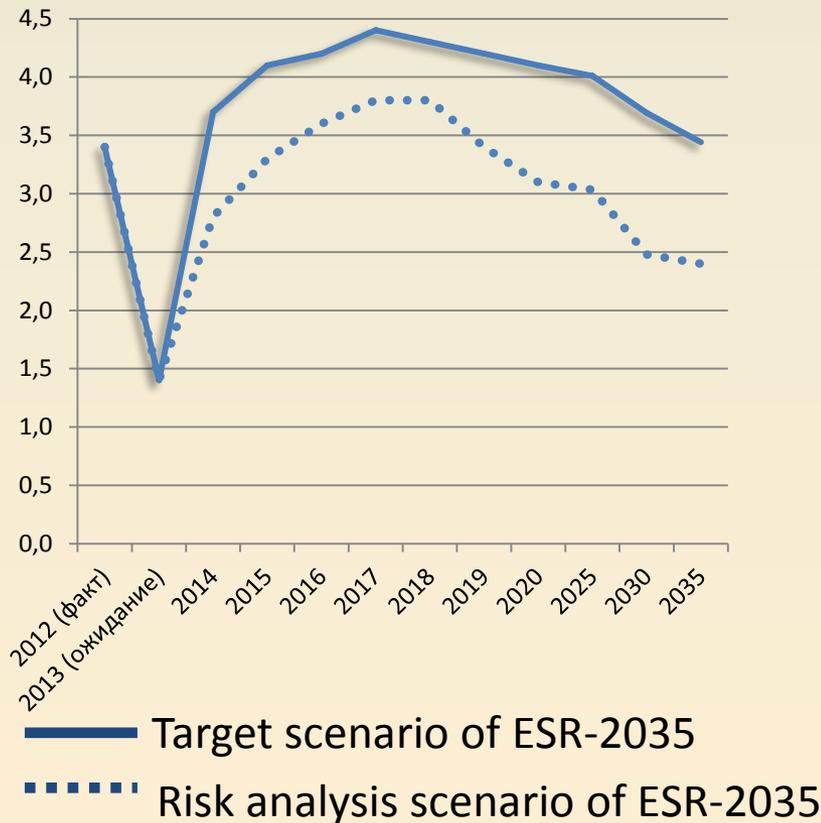
The Central idea of ESR-2035 is the transition from resource to resource-innovative development of fuel and energy complex based on full use of domestic resources and innovative capabilities through the formation of long-term technological chains with their saturation innovative technologies.

The aim of the ESR-2035 is the creation of innovative and efficient energy sector for sustainable economic growth, improving the quality of life and promotion of its external economic positions.

Changing macroeconomic conditions

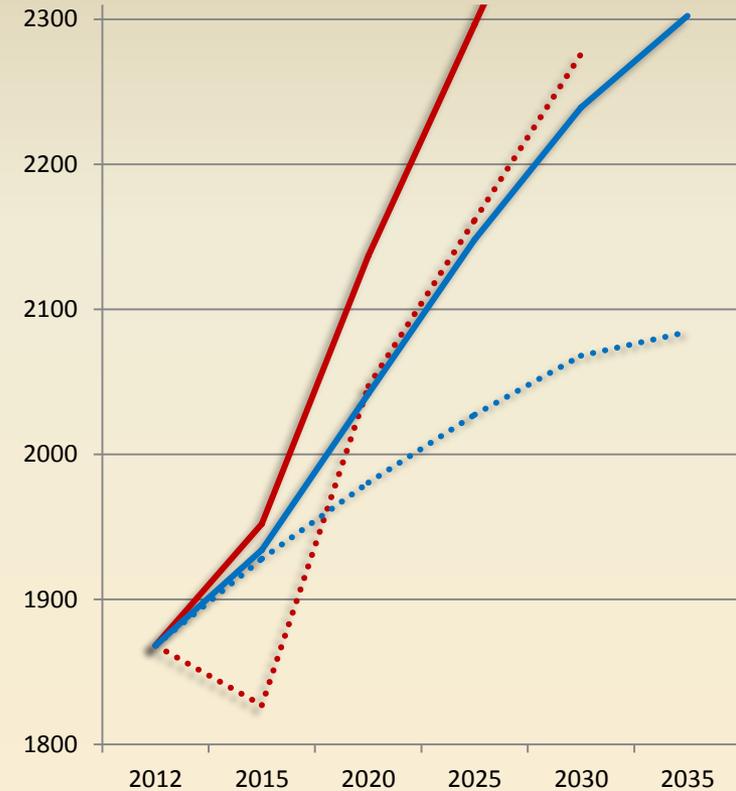
Average annual GDP growth rate

In ESR-2030 - 4.7%;
In ESR-2035 – 3.8% (target scenario);
- 2.8% (risk analysis scenario).



The production of fuel and energy (total)

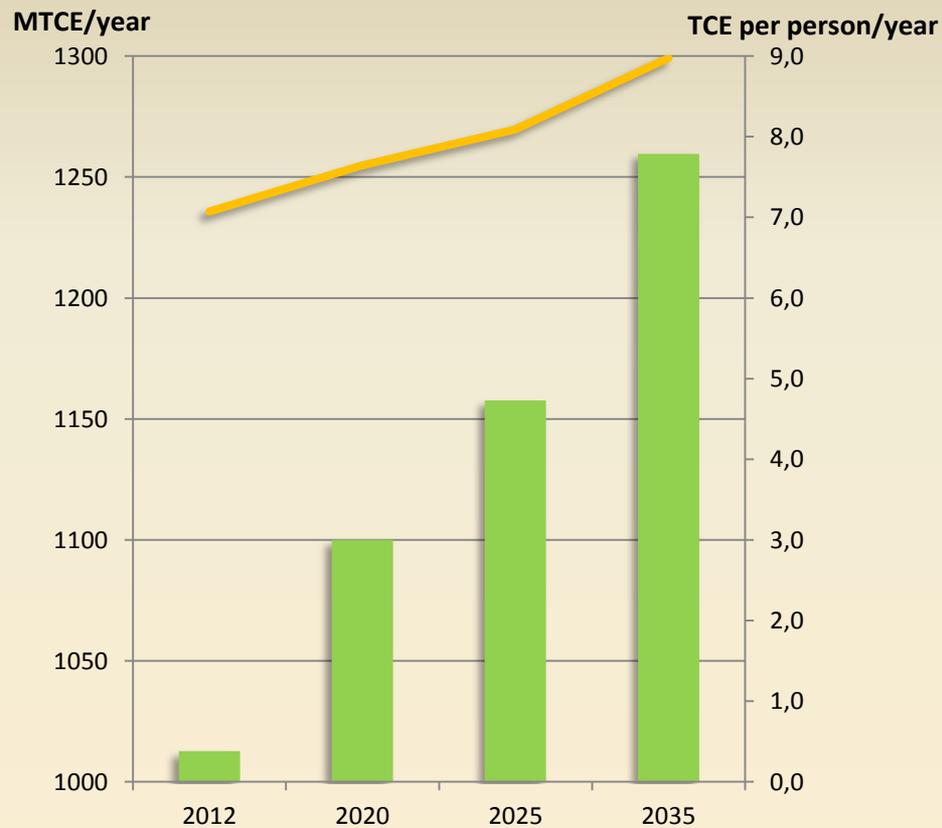
million tons of coal equivalent



Source: Vitaliy V. Bushuev, Institute of Energy Strategy

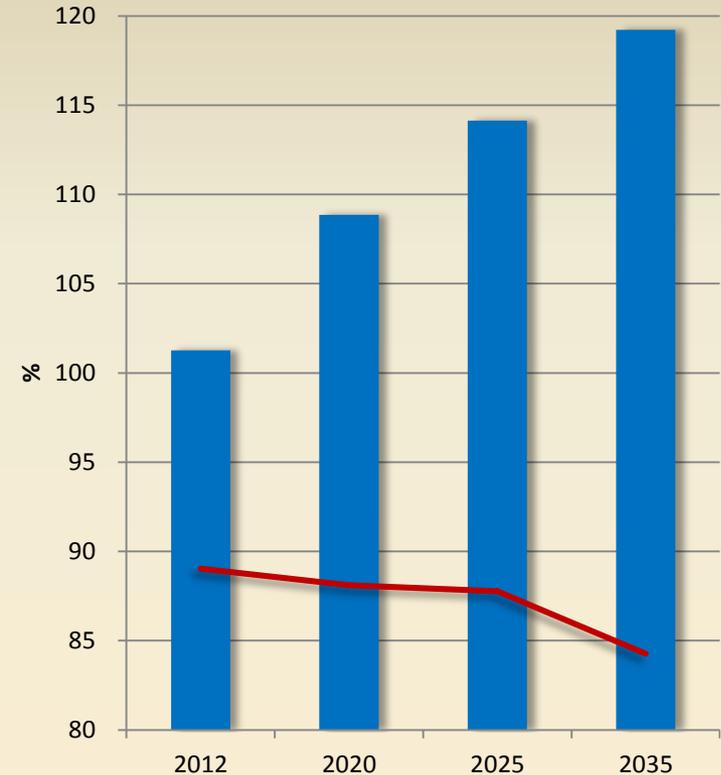
Prospects of demand for energy resources of Russia

Domestic demand



■ domestic consumption of primary energy, MTCE
— per capita consumption of primary energy, TCE

External demand



■ the growth of energy exports in real terms (2010 = 100%)
— the ratio of exports to domestic consumption

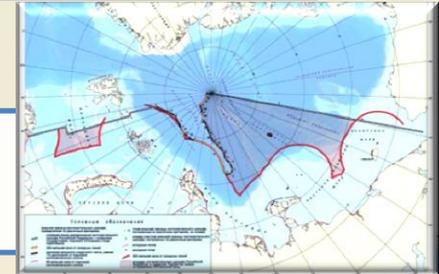
Source: Vitaliy V. Bushuev, Institute of Energy Strategy

Strategic initiatives of energy sector development

The formation of oil and gas complexes with the development of production, transport and social infrastructure in Eastern Siberia and the Far East



The development of the hydrocarbon potential of the continental shelf of the Arctic seas and the North of Russia



The development of energy efficient technologies



The development of the domestic energy infrastructure

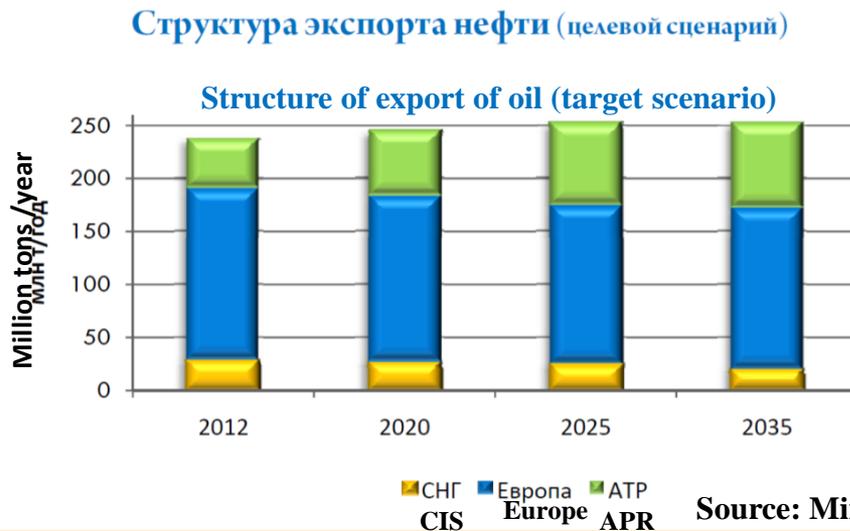
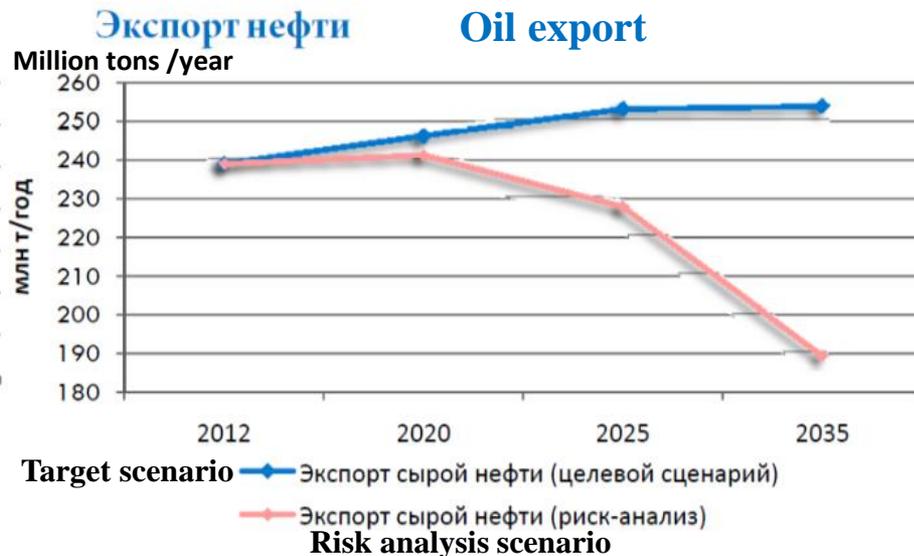
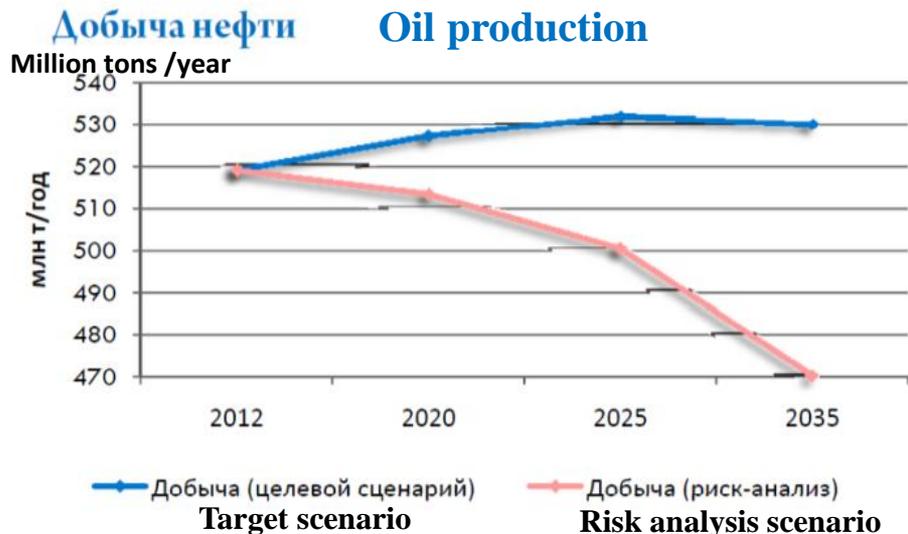


Source: Ministry of energy of the Russian Federation

Strategic initiatives in the oil industry

- **Stabilization of oil production**
- **Creation in the East of the country of the infrastructure for 20 - 25 % of total production and 40 % of exports of oil and oil products**
- **The increase of oil recovery factor up to 40 - 45 %**
- **Preparation of explored reserves, infrastructure and technologies for development of the Arctic shelf**

ESR-2035: the production and export of oil



Source: Ministry of energy of the Russian Federation

Strategic initiatives in the gas industry

- **The increase of gas production of 35-45 %**
- **Creation in the East of the country of the infrastructure for 15-20 % of total gas production and 35-40 % of exports of gas**
- **Deep processing of up to 25-30 % of produced gas**
- **Liquefaction (LNG) up to 8-11 % of produced gas**
- **Extension of the Unified gas supplying systems to Eastern Siberia and the Far East**

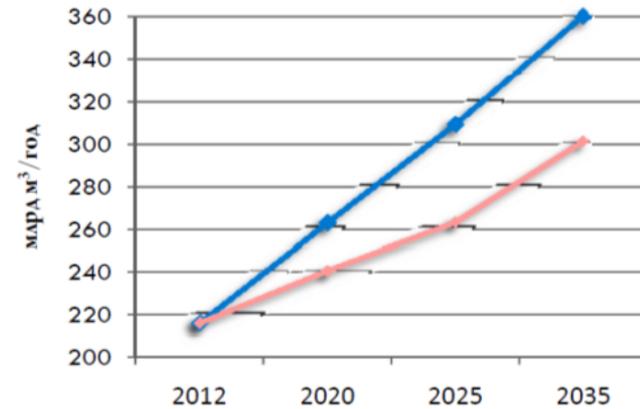
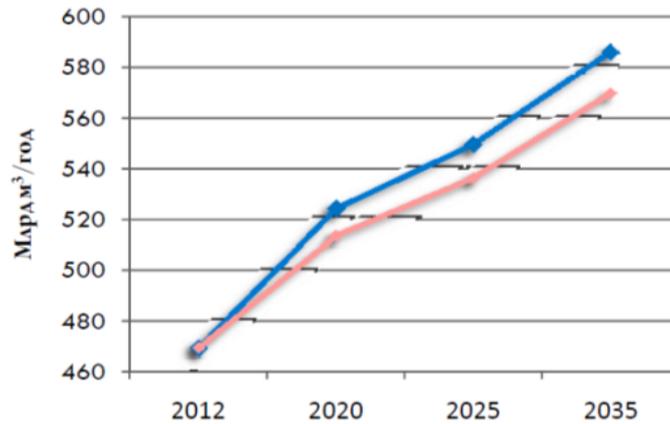
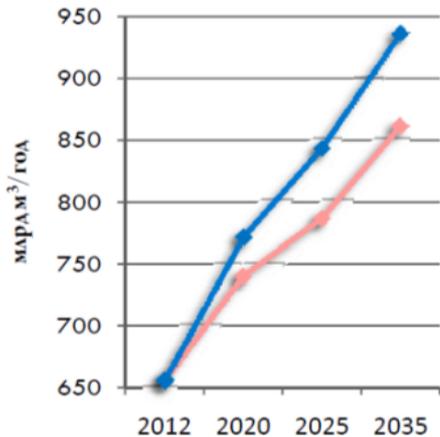
ESR-2035: gas industry

Добыча газа Gas production

Внутреннее потребление Domestic demand

Экспорт Gas export

Gas export



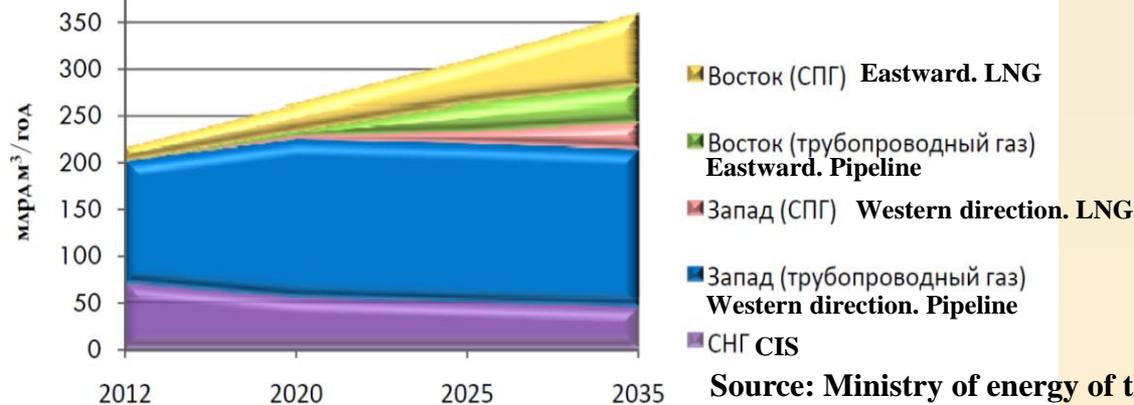
◆ Сценарий риск-анализа Risk analysis scenario
◆ Целевой сценарий Target scenario

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Структура экспорта (целевой сценарий)

Structure of export of gas (target scenario)



Source: Ministry of energy of the Russian Federation

The development of export infrastructure

The implementation of already planned projects: "South stream", "Power of Siberia", the creation of LNG plants

The key task of ESR-2035 is the development of new energy corridor (the Northern sea route)



Source: Vitaliy V. Bushuev, Institute of Energy Strategy

The development of oil and gas infrastructure in the Far East

Oil complex

- ❖ The development of oil and gas fields of Sakhalin oblast (on the continental shelf of the Okhotsk sea) and oil deposits on the territory of the Republic of Sakha (Yakutia) (Talakan and adjacent fields) ;
- ❖ Continued implementation of the projects "Sakhalin-1" and "Sakhalin-2";
- ❖ The construction of the refinery in Primorsk region;
- ❖ Modernization of oil terminals Nakhodka and De-Kastri



Gas complex

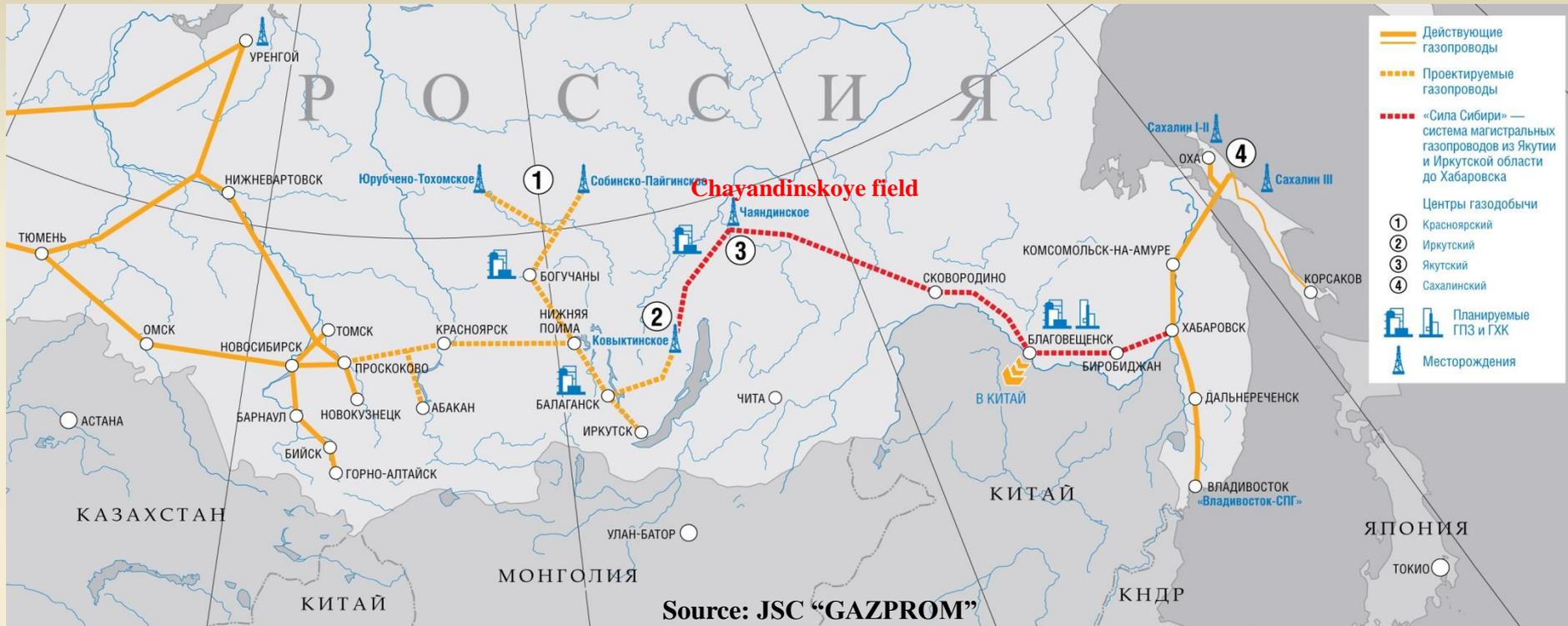
- ❖ The formation of the Yakut gas Centre (on the basis of the Chayanda field, with the prospect of development of adjacent fields – Srednebotuobinskoe, Taas-Urjahskoe, Verhnevilyuchanskoe and others);

Oil and Gas chemistry

The formation of oil, gas and petrochemical clusters, large gas processing facilities and chemical plants

- ❖ The construction of new LNG plants in Vladivostok and Sakhalin
- ❖ Completion of construction of the gas pipeline "Power of Siberia";
- ❖ The gasification of the southern Federal district

Gas transmission system “Power of Siberia”



The total length of the GTS is about 4000 km, the design capacity of 38 billion cubic meters of gas per year.

Implementation of projects in the East of Russia and of Energy Strategy as a whole opens additional possibilities for further development of mutually beneficial Russian-Japanese energy cooperation.

Thank you & good luck !



On the development of the new Energy Strategy of Russia (ESR-2035)

